Signe Ganz | 5612179 | Heritage & Architecture | Graduation Studio Exploring 20th century Malls

RETHINKING OF A TYPOLOGY

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To obtain the degree of Master of Science at the Delft University of Technology on the topic:
Strategies to facilitate decision-making processes in the revitalisation of vacant shopping malls

RETHINKING OF A TYPOLOGY

How can the theories of Den Heijers' dissertation "Managing the university campus - Information to support real estate decisions" be applied in the analysis and revitalisation process of malls to make time-efficient, informed and optimal decisions about the future of vacant shopping malls?

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ABSTRACT

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This master thesis explores the application of the theories from Den Heijer's dissertation *'Managing the university campus - Information to support real estate decisions'* in the context of analysing vacant shopping malls in revitalisation processes. The aim is to develop a decision-making process that can be used by decision makers to make time-efficient, informed and optimal decisions about the future concept of these shopping malls. Building on the existing knowledge, a new framework in the form of a step-by-step plan has been developed. This step-by-step plan combines the theories from Den Heijer's dissertation focusing on shopping mall revitalisations and extending them to the heritage context and thus the analysis of the past. By applying this new framework within revitalisation processes, optimal decisions can be made tailored to the project and the process can be accelerated. As a result, the vacancy rate of these shopping malls and its social and urban consequences, like an increasing number of crimes or the loss of identity are shortened.

2 FOREWORD

When I was a child, my parents often took me to the nearby *Karstadt* department store after my piano lessons in the old centre of my town, where I could choose a little something to eat as a reward. When I became more independent, this Karstadt was the primary place for me to go shopping. A department store that offered everything from furniture and clothes to food. Today, however, I can hardly remember the last time I entered this department store. And many other people feel the same way about it.

I grew up in a generation in which digitalisation has replaced large parts of everyday life. The same applies to the retail sector, where, as a result, the number of vacancies is increasing. Those have a negative impact on the appearance of our cities. In order to find solutions to this problem, I chose the graduation studio *Adapting 20th-century Heritage - The Modern Mall.*

Due to the lack of inner-city space and the increasing demands for sustainability in architecture, the construction industry is increasingly concerned with the revitalisation and reuse of existing buildings. The goal is to use existing structures to reduce new construction projects and thus protect the environment. (Schrami, 2021) The vacancy rate and the good condition of malls from the 20th century make them predestined for revitalisation and are leading more and more project developers to develop new concepts.

If we consider the definition of *heritage* according to P. Howard, author of the book *Heritage - Management, Interpretation, Identity (2003)*, there is no limit to what can fall within the scope of heritage. Thus he asks: "[...] what do people wish to conserve or collect, to protect from the ravages of time? The simple answer is 'everything'. "(Howard, 2003, p. 54)
This is usually less about preserving the material and making it available to the public than about non-material motives, such as the preservation of faith, emotion and events. (Howard, 2003)

Almost all people encounter malls in their lives. It may only be a fleeting encounter or a close bond based on the experience in this building. In both cases, the preservation, revitalisation or demolition of a mall is always an emotional matter worth protecting and developing to the best of one's ability.

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INTRODUCTION
The fateful evolution of shopping and the ungrateful role of decision-makers

In the early 20th century, shopping malls were originally envisioned as community centres where people could shop, engage in cultural activities, and interact socially (Gruen & Smith, 1960). Urban planner Victor Gruen described malls at the time as a gathering of consumption with civil and commercial facilities such as clubrooms, zoos and kindergartens. The shopping mall was a place of freedom and ease. Over the years, however, the image of shopping malls changed from multicultural centres to temples of pure consumption. (Norddeutscher Rundfunk, 2020)

Retail has always been one of the fastest-changing industries, which has suffered severely in recent years (Stumpf et al., 2016). The main reason for shrinking sales in stores is the change in people's buying behaviour and the opportunities to shop online (Bauer & Rock, 2019; Möhlenbruch, 2012). As a result, we see vacant storefronts in malls and city centres (figure 1&2), which leads to a loss of attractiveness and identity as well as an increasing number of crimes in the vicinity (Brinker & Sinning, 2011; Hertwig, 2014; Kube, 2003).
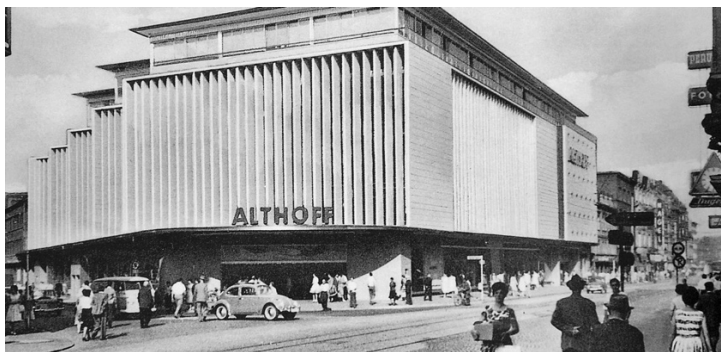
Figure 2: Photograph of the Althoff Mall in Herne
([Photograph of the Althoff Mall in Herne], ca. 1960

Figure 1: Photograph of the vacant Althoff mall in Herne
(Cristóbal Márquez, 2017)

"Once a vacancy occurs, further vacancy quickly occurs because the place becomes less attractive for visitors."[1] Boris Hedde, Managing Director of the Institute for Retail Research in Cologne, answers the question of the impact of vacancy on the surrounding area (Radü, 2022). This ultimately forms a vicious circle as illustrated in figure 3 that needs to be stopped at the first sign:

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structural, political and economic
influences on the industry and
change in people's shopping behaviour

less people and less appealing
for investors

Decline of shoppers
in malls

thus again
more vacancy

Decrease in the turnover of
mall/store owners

more space for crime and loss of identity
for the city and its
inhabitants

lack of income
= lack of money for rent
= more vacancies

empty city centres
(as many malls and are located in central
locations)

Figure 3: Vircious circle of vacancy in malls
(own, illustration, 2023)

[1]Translated by the author of this paper from:
"Wo Leerstand einmal auftritt, kommt schnell weiterer Leerstand hinzu, weil der Ort für Besucher unattraktiver wird." (Radü, 2022)

To this end, there have been studies and projects for the revitalisation of vacant retail spaces for several decades. As the literature and case studies reveal, however, a large proportion of revitalisation projects have problems with smooth and on-schedule realisation. This is because a revitalisation process involves a large number of different stakeholders that differ in their goals, ambitions and constraints (*Innovationen Für Innenstädte - Nachnutzung Leerstehender Großstrukturen*). This leads to difficult coordination, increased potential for conflict and an enhanced need for conversation (Bahr & Burger, 2018).

To combat these problems, there is a superordinate position for the entire revitalisation process, the so-called *decision maker* (Moons, 2020). This decision maker not only coordinates and mediates between the different stakeholders. He or she also must be aware of the different goals and ambitions of all parties, as well as of any circumstances of the building, to finally decide on a new future concept for the vacant mall. However, those Decision Makers "[…] often face challenges in the processes of identifying stakeholder and their needs, assessing stakeholder impacts and their relationships, and formulating appropriate engagement strategies." (Mok et al., 2014, p. 447) This is because they often do not have the right tools and strategies to get to all this information (Heijer, 2011). Another problem is that the typology of malls is young. Therefore, the generally available data and information on the typology itself, on which decision-makers could relay, are still very sporadic and limited.

As a result decision-makers lack an academic information base for making decisions about the new concept of a vacant mall, which prolongs the revitalisation process. That means that costs increase, the building deteriorates more, and the vacancy-related problems described in the beginning extend (Skitmore et al., 2012).

Figure 4: The decision maker stuck in the complexity of the demands of all stakeholders
(Moons, 2020, p. 6)

Systematic approaches are needed to generate an information base (Mok et al., 2014). Therefore, this paper is dedicated to the development of a tool in the form of a step-by-step plan that guides the decision maker through the analysis process of the mall and the stakeholders to gradually create the necessary information base to

generate a successful new concept for the mall. This way, time-efficient, informed and optimal decisions about the future of vacant shopping malls can be made.

The structure of the step-by-step plan is based on a combination of the *Designing an Accommodation Strategy (DAS) Framework* (De Jonge et al., 2008) and the theory of the *Corporate Real Estate Management Perspectives* (Deutsche Akademie für Management, 2022) and is thus guided by the dissertation by Alexandra Cornelia Den Heijer *'Managing the university campus - Information to support real estate decisions'*. She addressed the management of university campuses and the availability of an information base for decisions in campus management. (Heijer, 2011)

Accordingly, the developed Research Question of this thesis is as follows:

> *How can the theories of Den Heijers' dissertation "Managing the university campus - Information to support real estate decisions" be applied in the analysis and revitalisation process of malls to make time-efficient, informed and optimal decisions about the future of vacant shopping malls?*

The theories of this paper are combined into a tool for the use within the analysis of the typology of young heritage malls. Young heritage malls can be defined as malls that were built in the 20th century and are the subject of this year's graduation studio. Secondly, the new step-by-step plan was applied and tested in the analysis of two building levels. The national level of Dutch malls to create the missing information base on the typology and on a carefully selected individual Dutch case to derive an individual new concept as part of the design process, the Shopping Mall *In de Bogaard.*

However, the application of the framework is not part of this paper, as it would exceed the scope. The most important results of the application for this graduation studio can therefore be found in the appendix of this thesis.

5
THEORETICAL FRAMEWORK

5.1. Definitions

5.1.1. Definition of a revitalisation process

Particularly for public real estate, it is important to generate a stronger footfall in the building and its surroundings and, with that, to ensure a higher turnover. However, this can only be achieved if there is a high appreciation of the building within the target group. (Schmidt, 2023)

For this purpose, properties must meet the demands of the target group; in the case of a shopping mall, it is the visitors/buyers. Important areas include not only the shopping experience itself but also "[…] Accessibility, building structure, number of parking spaces, sector and tenant mix [and] mall management." (Krieger, 2011, p.11).[1] However, as the demands in these areas are constantly evolving, the shopping mall must continually adapt to these changes in order to remain successful. This adaptation process is called *revitalisation*. (Krieger, 2011)

Nevertheless, we are living in a time in which not only the demands are changing, but also the idea of shopping is being redefined. Thus, revitalisation processes must not only take place within a function but also aim for functional changes that bring the desired success to the surrounding area. According to Ramlee et al. (2015), revitalisation is about giving new life and vitality to a building or an entire neighbourhood, regardless of its original function. "The idea of revitalisation is to balance the current rapid development in urban areas through the conserving urban identity, culture and traditions." (Ramlee et al., 2015, p. 362)

5.1.2. Definition of stakeholders

Regardless of the parameters, many different parties – *stakeholders* -, are involved in a revitalisation process. Those "[…] can be defined as a person or group […] who has a vested interest in the success of a project and the environment within which the project operates." (Olander, 2007, p. 279). Stakeholders can be grouped as follows in figure 5:

(Skitmore et al., 2012)

INTERNAL STAKEHOLDERS   **EXTERNAL STAKEHOLDERS**

(Howard, 2003)

Owners	Insiders	Government	Media	Academics	Outsiders

(Freeman, 1984)

Owners	Insiders	Government	Media	Academics	Outsiders
- private property owners - public sector - financial suppliers / investors - property developers	- residents in the vicinity - interest groups - local and regional administrations - temporary users - experts and scientists	- municipalities - planners - policy makers - financial suppliers - country administrative board - national Government	- books - websites - literature - documentation	- experts and scientists - students - teachers - researchers	- educational parties - tourists - foreign visitors - pilgrims - connoisseurs - non-profit organisations

Figure 5: Category of Stakeholders by Freeman, 1984; Howard, 2003; Skitmore et al. (own illustration, 2023)

[1]Translated by the author of this paper from:
"[…] Verkehrsanbindung, bauliche Struktur, Anzahl der Parkplätze, Branchen- und Mietermix, Center Management." (Krieger, 2011, p.11)

They all differ in "[...] public concern[s], interest-related goal[s] and individual constraint[s] [...]" (*Innovationen Für Innenstädte - Nachnutzung Leerstehender Großstrukturen*, 2015, p. 31)[1] and hope to gain different socio-political, cultural and financial advantages (Howard, 2003). Important stakeholders in a shopping mall revitalisation process include government agencies, customers, owners, tenants, investors and communities (Agarwal, n.d.).

5.1.3. Definition of decision maker and real estate decisions

The coordinating decision maker is responsible for the so-called real estate decisions (Mok et al., 2014).
In the context of a shopping mall revitalisation process, real estate decisions are particularly important as they can impact the mall's financial viability and attractiveness to tenants and customers, competitiveness, and long-term sustainability. Therefore, these decisions require careful consideration of various factors by the decision maker. (Battisti, 2022; Jagdfeld, 2022; Rogers & Eckenrode, 2021)

5.2. Main Theory: 'Managing the university campus – Information to support real estate decisions 'by A. Den Heijer

The dissertation *'Managing the university campus -Information to support real estate decisions'* by A. Den Heijer (2011) serves as a basis for this research. It addresses the difficulties of managing university campuses and provides information to support real estate decisions. She recognised that there are major coordination difficulties between the many stakeholders involved and "[…] that campus managers did not have appropriate tools to analyse and integrate […] stakeholder's interests in the decision-making process […]." (Heijer, 2011, p. 36). The aim of her dissertation is, therefore, to develop an information base for campus managers that facilitates the coordination of different stakeholders and, subsequently, decision-making about the future of a building (Heijer, 2011).

To achieve this, Den Heijer uses a combination of two theories into a complex step-by-step plan: The Corporate Real Estate Management (CREM) Perspectives represent the most important areas in Corporate Real Estate Management (figure 6). To generate an information base for the decision-makers, according to Den Heijer, all the ambitions, goals, hopes and constraints of the various stakeholders must be analysed within all four perspectives, and then be compared and evaluated. (Heijer, 2011)
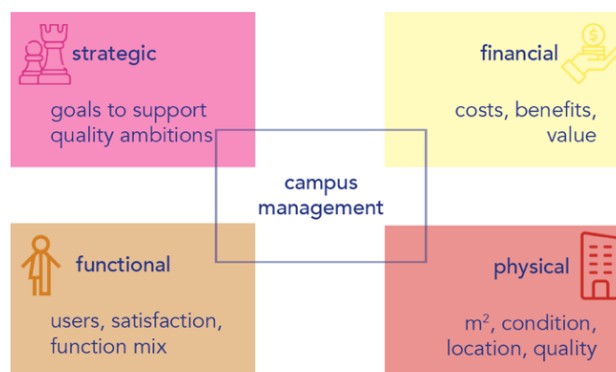
Figure 6: CREM-Perspectives
based on (Heijer, 2011, p.108)

The second theory used in the dissertation is the *Designing an Accommodation Strategy (DAS)-Framework* (figure 7). The overall objective of this frame is to develop a new accommodation strategy for vacant buildings with the help of four management tasks that are applied as an evaluation cycle to support the decision maker in the process of making decisions about the future use of a building (De Jonge et al., 2008):
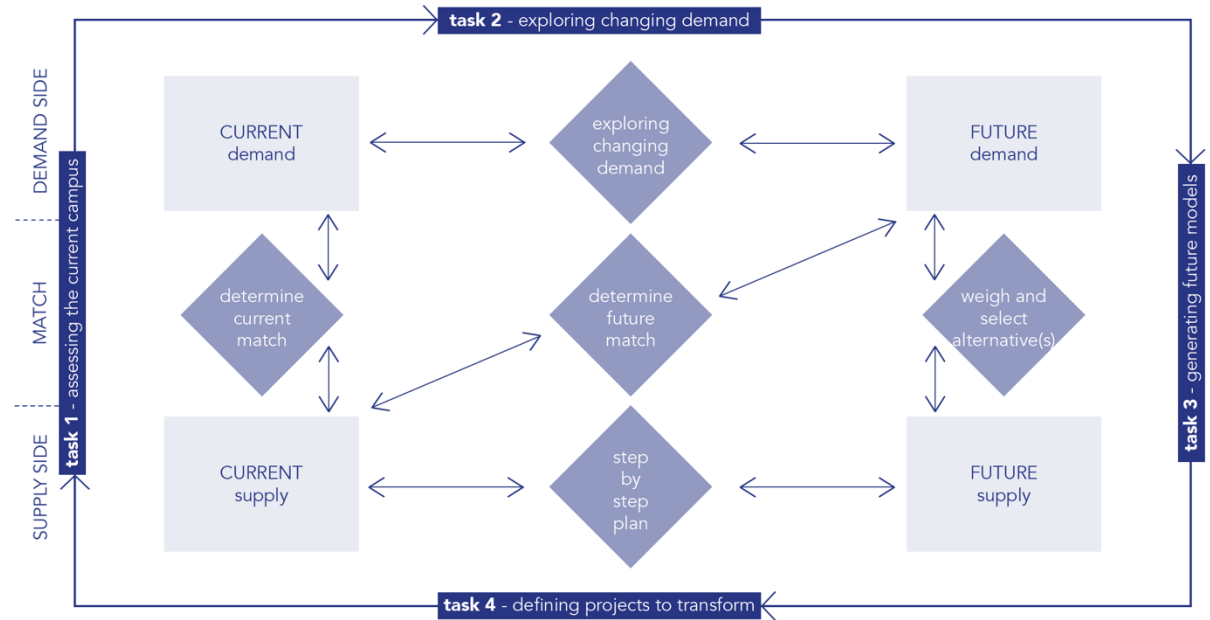
Figure 7: Framework matching supply and demand of space, now and in the future
based on (Heijer, 2011, p.xv)

Den Heijer integrates the four CREM-Perspectives into each of the four tasks of the DAS-Frame as shown in figure 8. This provides a comprehensive analysis of the most important CREM subjects in each task, leading to a comprehensive information base for the decision-making process on the future of university campus.
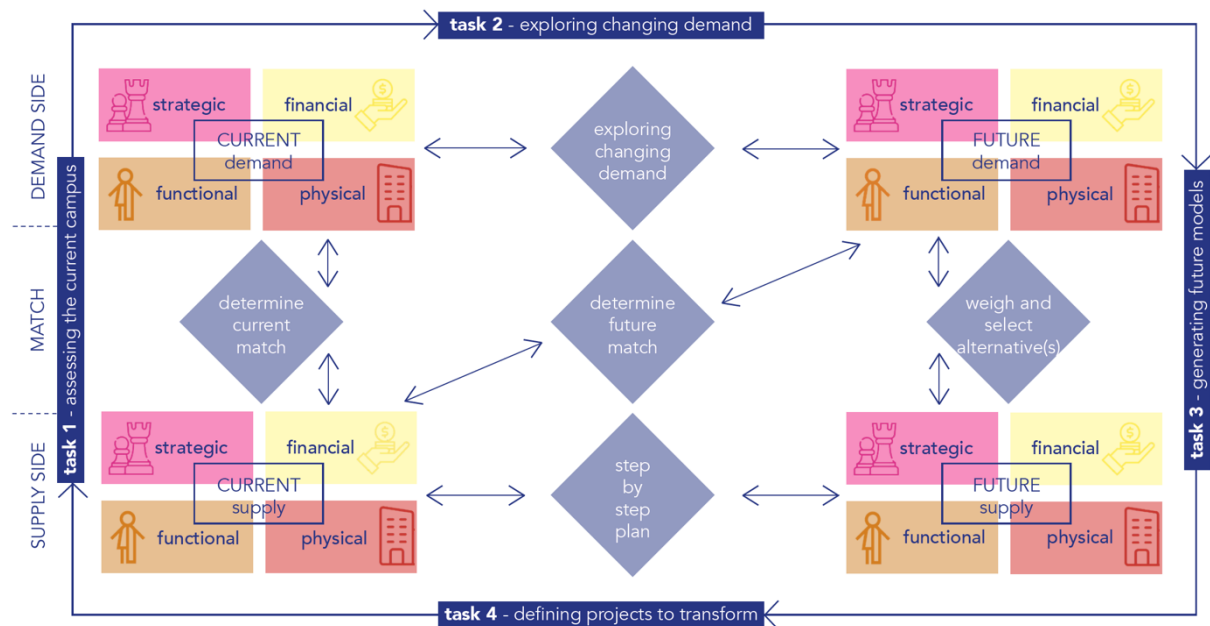
Figure 8: The combined DAS-Frame and CREM-Perspectives
based on (Heijer, 2011, p. 115)

5.3. Integrating my research into the state of the art

The combination of the theories covers the analysis of current and future influences on a building. However, following Ramlee et al.'s (2015) definition of revitalisation, analysing the past of buildings in revitalisation processes is of great importance to preserve historical values, maintain authenticity and identity, take into account the urban context and understand structural aspects. This enables a holistic approach to the revitalisation of buildings and supports the sustainable development of urban areas. (Ramlee et al., 2015) Furthermore, the step-by-step plan developed by Den Heijer has not yet been applied to the typology of 20th-century malls, which today are struggling with high vacancy rates.

The aim of this work is, therefore, to test the validity of the theories combined in Den Heijer's step-by-step plan in application to the typology of the 20th century shopping mall and to supplement this step-by-step plan with an analysis of the past. This enables a holistic approach to the revitalisation process of young heritage malls and leads to a comprehensive information base for the decision-makers.
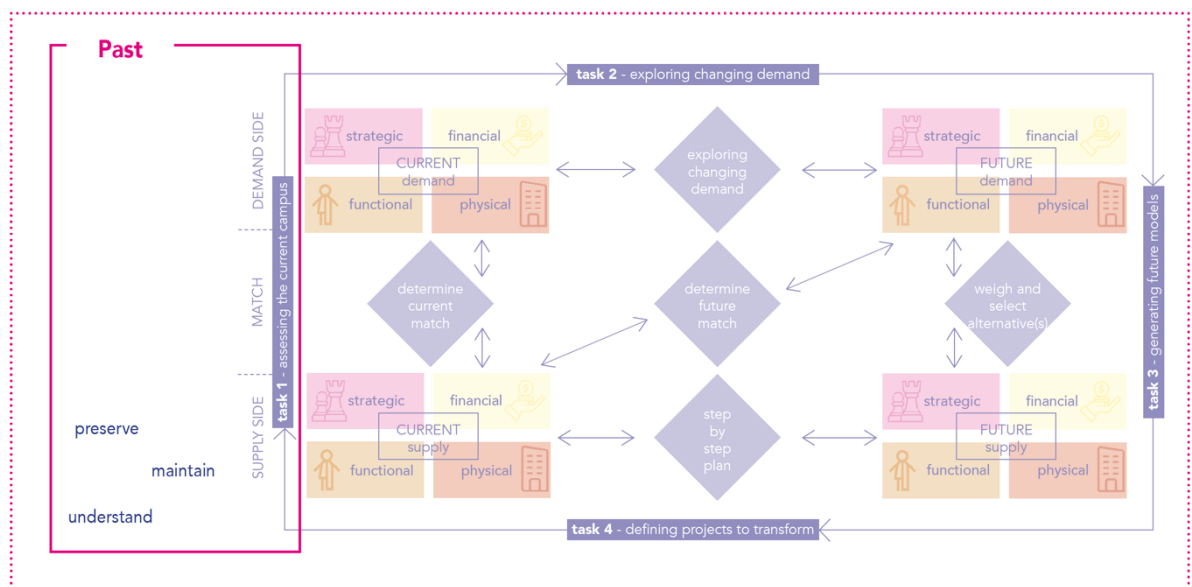
Figure 9: Extension of the theory to include the analysis of the past
(own illustration, 2023; Heijer, 2011, p. 115)

6

METHODOLOGY

This research intends to develop a tool that supports the decision makers to gather enough information about a vacant shopping mall and their stakeholders to develop an optimal new concept based on this information. It is conducted as exploratory research, as it is based on the further development of already existing theories.

To anwer the research question of this paper, qualitative systematic literature research in the field of revitalisation strategies and definitions, the problems of shopping malls built in the 1960s, the categorisation and tasks of involved stakeholders as well as strategies to facilitate decision-making processes. Using the TU Delft libraries, Google Scholar, existing books and interviews, research reports, theses, dissertations, reports and theories on the application of decision-making theories in the real estate sector were identified, evaluated for relevance and included in the research.

Through a content comparison of the in chapter 5 described theories in the deductive process of literature research, the following hypothesis could be made: In a revitalisation process of any building typology, the analysis of its past is indispensable for the creation of a future functioning subsequent concept by the decision maker.

Building on this hypothesis, the combination of the DAS-Frame and the CREM-Perspectives by Den Heijer have been extended to ensure that the past is analysed as broadly as the present and the future. In that way, a new tool was developed in the form of a step-by-step plan for revitalising shopping malls from the 1960s, which is described in the Research Results.

	1. Qualitative systematic literature review	Subjects
THEORY-BASED DEDUCTIVE RESEARCH		- Revitalisation strategies and definitions - Problems of young heritage shopping malls - Definition, categorisation and tasks of stakeholders - Strategies to facilitate decision-making processes
	2. Qualitative systematic literature research and following content analysis and comparison	Theories - 'Managing the University Campus - Information to support real estate decisions' (Heijer, 2011) - Designing an Accommodation Strategy (DAS) Framework (De Jonge et al., 2008 - Corporate Real Estate Management (CREM) Perspectives (Heijer, 2011)
	3. Identifying the gap and theory-based development of the hypothesis	In a revitalisation process of any building typology, the analysis of its past is indispensable for the creation of a future functioning subsequent concept by the decision maker.
Research Question:	How can the theories of Den Heijers' dissertation "Managing the University Campus - Information to support real estate decisions" be applied in the analysis and revitalisation process of malls to make time-efficient, informed and optimal decisions about the future of vacant shopping malls?	
THEORY-BASED INDUCTIVE RESEARCH	4. Theory based extension of the original step-by-step Plan to answer the research question	Theories - Definition of Revitalisation by Ramlee et al. (2015) - Designing an Accommodation Strategy (DAS) Framework (De Jonge et al., 2008 - Corporate Real Estate Management (CREM) Perspectives (Heijer, 2011)

Figure 10: The research process
(own illustration, 2023)

7 RESULTS

The following chapter explains how the theories of the DAS-Frame and CREM-Perspectives have been extended and restructured to form a new guiding step-by-step plan in revitalisation processes, including the past, to create an all-encompassing information base for decision-makers.

7.1. The new step-by-step plan

7.1.1. Adaptation of the DAS-Frame to the heritage context

In order to successfully integrate the analysis of the past into the existing tasks of the DAS-Frame, two steps need to be added. These are placed before the first task, according to Den Heijer and are based on the tasks of the DAS-Frame for analysing the current situation.

The first of these two steps is called *assessing the original mall* and serves to examine the original buildings and their historical background. Accordingly, this step examines what the original supply and demand were at the time the mall was built. The second step is called *exploring changing demands of the original mall*. In this step, past influences and developments up to the present day that led to the current state of the shopping mall are analysed. This is followed by the third step *assessing the current mall*, which is based on the DAS-Frame according to Den Heijer (2011) and highlights "[…] what we have, and what we need […]. "(Moons, 2020, p. 30) The following step 4 and 5 are the same as Step 2 and 3 of the original DAS-Frame and will be explained in chapter 7.1.5.

7.1.2. Content of the four CREM-Perspectives

The four CREM-Perspectives (functional, physical, financial and strategic) are superior to steps 1-4. All perspectives have individual topic areas that need to be analysed within those steps (Heijer, 2011).

The functional perspective is used to examine the functions and users of the original mall (Step 1), what the influences were in this subject (Step 2) and what functions and users these influences have led to in the current mall (Step 3) (Heijer, 2011).

From the physical perspective, the analysis of the structures of the building, as well as the surroundings and the evaluation of their condition, takes place to be able to assess the future possibilities of the mall (Heijer, 2011; Moons, 2020). Following the work of Moons (2020), a qualitative and quantitative analysis can be performed. For example, the numerical development of built malls in the Netherlands and the allocation of these malls are included in the quantitative compilation of data from this perspective. Within the qualitative analysis, a table with different categories was developed to record and evaluate information about the original structural and spatial conditions (Step 1), the influences through developments and trends (Step 2) and the current state after these influences (Step 3).

The analysis from the financial perspective serves to collect all information about the costs and benefits of malls. Three categories should be examined in particular: The available budget, the value ("[…] book value, assessed value […], insurance value […] "(Heijer, 2011, p.140)) and permanent costs. (Heijer, 2011)

"The strategic perspective is all about adding value to the [mall] goals […]." (Heijer, 2011, p. 143) It is important to examine what the goals and ambitions of the stakeholders were when the mall was first built (Step 1). Changes in the mall through developments and trends in the functions of a mall (Step 2) led to different ambitions of the stakeholders involved today (Step 3).

7.1.3. Execution of steps 1 to 3 in the four CREM-Perspectives

Steps 1 to 4 are carried out in each perspective. Adding steps 1 and 2 changes the substantive scope of the DAS-Frame and, consequently, how each step relates to the other. The components of the analysis within the first three steps build on each other up to the current state of the mall and are interdependent. Therefore, the execution of the steps in this thesis is slightly adjusted so that steps 1 to 3 are not executed and evaluated independently but together. The concept of performing the analyses in each perspective is therefore as shown in figure 11:
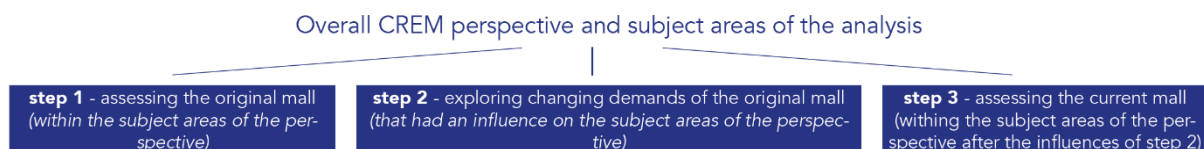
Figure 11: Concept for the anaysis in each CREM-Perspective
(own illustration, 2023)

7.1.4. Conclusions of steps 1 to 3

By comparing the results of the analysis of the three steps, it is possible to draw two conclusions:
A: The assessment of the original mall is divided into strengths and weaknesses. Weaknesses should be avoided in the revitalisation projects of malls, while strengths should be included.
B: The assessment of the current mall is divided into strengths and weaknesses, which should be addressed in future mall projects as well.
The strength of a mall is defined as a feature that encourages people to spend time within and around the mall. A weakness of a mall can be defined as a characteristic or aspect of the mall that discourages people from spending time within and around the mall.

7.1.5. Execution of steps 4 and 5

Other than Steps 1 to 3, Steps 4 and five are dedicated to analysing the future. Step 4 is called *exploring the changing demand* and shows future trends that will likely have an impact on the mall within the four CREM Perspectives. These influences are evaluated according to good and negative influences and are used as a basis

for the following Step 5, which is called *generating future models* and examines which of these trends have the greatest influence on the development of malls. (Heijer, 2011; Moons, 2020) To do so, the *Scenario Planning Tool*, according to De Jonge is used, which makes it possible to develop scenarios and strategies for new future concepts.

From the explanation of the step-by-step plan, the following framework can be created:
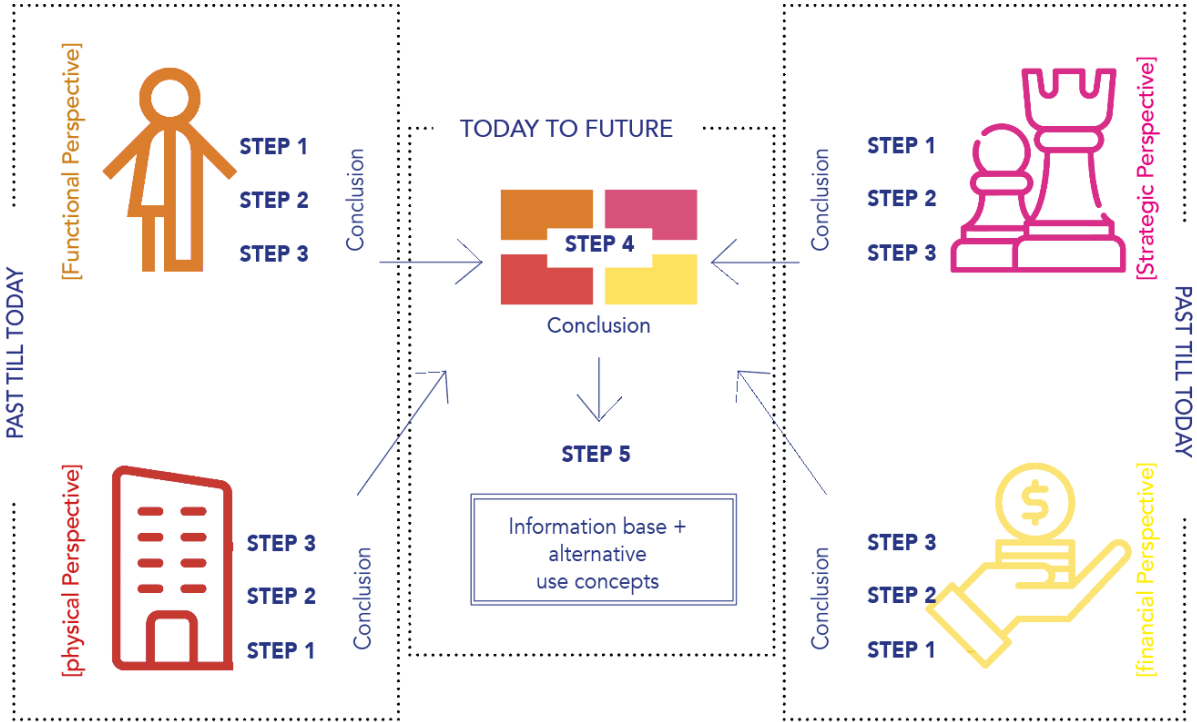
Figure 12: The full schematic step-by-step plan to apply on malls in the heritage context (own illustration, 2023)

8
DISCUSSION

In order to make a final evaluation of the framework, the strengths and weaknesses of the step-by-step plan need to be discussed and compared with existing theories.

Looking at existing, widely used analytical tools, the mallspecific approach proves to be a strength.

The *PESTEL analysis*, for example, includes political, economic, social, technological, environmental and legal factors and provides a comprehensive understanding of the external environment that affects shopping centre operations. However, it has been noted that while this theory is a good starting point, it lacks specificity when addressing the unique challenges and requirements of shopping centre revitalisation projects. (Johnson, Scholes & Whittington, 2008) This is where the new framework, with its small-scale analysis topics within CREM-Perspectives not just of the building itself but also of the stakeholders, offers a distinct advantage.

Stakeholder analysis is an essential part of the decision-making process in shopping mall revitalisations. Understanding the interests, needs and expectations of stakeholders such as owners, tenants, customers and local communities enables decision-makers to effectively consider and address their concerns. (Freeman, 2010) The new design of the step-by-step plan ensures that decisions are aligned with the expectations and requirements of relevant stakeholders, increasing the likelihood of successful revitalisation projects.

Although the structured, integrative and specific approach to shopping malls is a strength of the new step-by-step plan, there are still some limitations to consider.

The structured approach of the topics within the CREM-Perspectives could lead to a limited exchange between design and research, influenced by factors such as time constraints and the specific objectives of the research. To increase the effectiveness of the framework, ways need to be found to integrate design knowledge into the research process. This is where the danger of *silo thinking* described in management theory becomes apparent (Hall, 2005).

An example would be the extension of the investigation of the users from the functional perspective. In the design process, of this graduation studio it became clear that the development of a new concept depends heavily on how people move, stay and feel between buildings and the different functions. The examination of these points could be grouped under the heading of *Routes and Behaviour* and help to add detail to the step-by-step plan.

In addition, the deviation from the original aim of comprehensively applying the new step-by-step plan to the typology of shopping malls and extending it to the heritage context is worth noting. The admission that applying the plan to all CREM-Perspectives is beyond the scope of the project shows that applying the whole framework in a revitalisation process could be very time and resource intensive. This could be seen as a limitation for practical application.

In a practical application of the framework, cost analysis could become much more important then emphasised within the new step-by-step plan. This could indicate a possible weakness of the framework, as it may not

encompass all relevant factors strongly enough for effective decision-making. In this context, analytical tools such as the *cost-benefit analysis (CNA)* could be integrated. The CNA, as a fundamental tool for assessing the viability of investment projects, is crucial in the decision-making process for mall revitalisation. It enables stakeholders to evaluate the financial aspects, including investment costs, operating costs, and expected return on investment. (Bierman & Smidt, 2012) Incorporating CNA in the analysis within the financial perspective ensures that decisions are based on a sound understanding of the economic implications and potential benefits of the revitalisation project.

In addition, challenges encountered during the information gathering phase of the application of the new framework on the national level of dutch malls, such as the lack of a comprehensive database covering the framework, actors, available funding and current functions, indicate a possible limitation of the framework. Nevertheless, it is worth noting that the new framework offers a promising basis for the establishment of such a comprehensive database and can be used for this purpose.

In summary, due to a lack of resources, the new framework may have limited possibilities to cover all relevant aspects of shopping mall revitalisation, to collect information and to integrate the financial and strategic perspectives in practice. However, the framework has the potential for improvement by addressing these limitations and providing a solid basis for comprehensive decision-making and successful shopping mall revitalisation.

CONCLUSION

The framework developed in this thesis in the form of a step-by-step plan combines the theories from Den Heijer's dissertation *'Managing the university campus - Information to support real estate decisions'* and extends it by analysing the past to facilitate the revitalisation process of 20th century shopping malls. This new step-by-step plan has both strengths and limitations. Compared to existing analytical tools such as the *PESTEL analysis*, its focus on shopping malls provides valuable and very specific insights and information. Furthermore, the inclusion of *stakeholder analysis* in the framework increases the effectiveness in addressing stakeholder concerns. Furthermore, with its clear division into steps, it provides the decision maker with a structured way of conducting the analysis to arrive at the information needed to make a decision about the future concept of a vacant shopping mall.

However, there are areas where future research is needed to improve the framework. Overcoming the limitation of exchange between design and research and thus silo thinking by integrating design knowledge is crucial to maximise the potential of the step-by-step plan. In addition, future studies of the frramework could explore strategies for practical implementation, taking into account resource constraints and the need for cost analysis. Further development of mechanisms to collect comprehensive information and the establishment of a dedicated database would steadily improve the applicability of the framework.

In summary, the new framework is promising but requires further research. By overcoming limitations, integrating design insights and considering resource constraints, future studies can refine the framework so that the new step-by-step plan can greatly support decision-making by the decision maker in shopping mall revitalisation projects. This enables revitalisation projects to be carried out on time, reducing vacancy and its social and urban consequences, such as increased crime or loss of identity.

10 LITERATURE

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APPENDIX

11.1. Influencing developments and trends of step 2 on the physical and functional CREM-Perspective

physical CREM-Perspective
- influencing developments -

Development 1: Mobility of cars

The car became more and more important when the first malls were built, which is why the developers planned more space for parking. (Delic & Knezevic, 2014)

Development 2: Growth of chain stores and increase of store numbers

Due to the change in buying behaviour and the demands of the customers, there was an increase in the space required for retail. The establishment of self-service shops as we know them today and the combination of different products in one shop also led to larger spaces. (Galema & van Hoogstraten, 2005) At the same time, more and more chain stores were created that needed more space. (Delic & Knezevic, 2014)

functional CREM-Perspective
- influencing developments -

Development 1: Developing technology and the Covid pandemic

In the mid 00s, online retailing became more and more influential in people's shopping behaviour and increasingly took market share (Podjavorsek, 2020). The Covid pandemic also contributed to people preferring to do their shopping from home. Due to the lockdowns and the fear, the number of visitors to malls dropped sharply and since then malls have had difficulties reaching pre-pandemic spending levels. (Cook & Hammond, 2022)

Development 2: Changed buying behaviour and other consumer demands

Due to the better working conditions after the Second World War, the rising incomes, the good economic situation and the smaller households, people's buying behaviour changed.
Private investment rose sharply in the 1960s and the desire for more and different products grew. More was invested in the construction and expansion of malls. (Galema & van Hoogstraten, 2005; Meßner & Hemmer, 2020)

Development 3: Demographic composition

Since 1965, the time when the first malls were built, the birth rate in the Netherlands has been declining and has been at a stagnant level since 1975. As a result, the ageing of the population is rising sharply. (Krause, 2008)

Development 4: Rrising rents in inner cities

Rising rents in the city centres mean that a large proportion of the retail trade can no longer afford the rents, which leads to a lot of vacancies in the city centres. (Käppner, 2021)

Figure 13: Influencing developments and trends of step 2 on the physical and functional CREM-Perspective (own illustration, 2023)

11.2. Application of the step-by-step plan within the functional CREM-Perspective on the national level of the typology of dutch malls and on the individual project level of the shopping mall *In de Bogaard*

functional CREM Perspective
- subject of the analysis: function and users -

step 1 - assessing the original mall	**step 2** - exploring changing demands of the original mall	**step 3** - assessing the current mall

Non-replacement of the city centre

The malls were built as a complementary function to the city centre, but not to replace it. Thus a good interaction between the city centre and the mall was given. (Galema & van Hoogstraten, 2005)

Development 1, 2, 4

Nowadays there is constant competition between the mall and the city centre. This is because the malls offer lower rents to city centre retailers thus more and more shops in the city centres move to a mall or sell their products online. Furthermore, going to a mall in the sense of a one-stop-shop is appealing to a society that is convenience driven. This is supported by the often more varied and better parking facilities around a mall compared to a city centre. (Källström et al., 2021)

Adaptation to demand

The location and function of a mall was based on the needs, purchasing power and focus of the population, and was therefore well attended (Galema & van Hoogstraten, 2005).

Development 2

60s 80s 00s 2023

Due to the expansions in the context of the growing demands of the customers, the malls developed into monofunctional and oversized shopping centres, which today no longer meet the needs, resulting in a lot of vacancies (Rijswijk, 2019).

National Level

Individual Project Level

5 and 15-minute radius: The mall's catchment area was Rijswik and parts of The Hague and the surrounding area. (Rijswijk, 2019)

1956 1972 1984 2020

today 30% vacancy (Rijswijk, 2019)

Categorisation and related functions

Four categories of malls were established:
1. neighbourhood shopping mall:
shops for daily needs (bakery, butchery and vegetable shops) - (e.g. Buurtwinkelcentrum C. van Eesterenplein)
2. district shopping mall:
additional shops for Household goods, clothing and haberdashery and shoemaker
3. city shopping mall:
additional specialist shops and several supermarkets
4. regional shopping mall:
The type of additional shops was based on the purchasing priorities of the respective region (e.g. old shopping mall Leidschendam).

Neighbourhood and district malls could additionally be equipped with social functions such as libraries, cinemas, churches and kindergartens.
(Galema & van Hoogstraten, 2005)

Development 1, 2

1. Perimeter: 300-600m

2. Perimeter: 1500m

3. Perimeter: whole city and outskirts

4. Perimeter: supply for an entire region

To remain competitive in the era of e-commerce and changing buying behaviour and other costumer demands, many of the malls are now offering a wider variety of products. In addition, the sales sector is moving towards experimental retail, which means that neighbourhood malls are now also offering higher-priced products that were previously only available in the regional malls. Another advantage is that more and more mono-functional malls are being converted into mixed use malls with social catalysts through revitalisation. (Clarke & Kinghorn, 2018; (Patel & Hung, 2023)
However, there are also disadvantages that come with the blurring of distinctions between different shopping malls: It becomes more difficult for consumers to find the product they want, and competition between sectors increases as it becomes more difficult to show individuality between different stores. This also affects the footfall. While retailers are struggling to differentiate themselves and offer individual in-person customer service, many costumers are choosing to take advantage of online offers. (Chaffey & Smith, 2019)

The shopping mall In de Boogard was a city shopping mall and accordingly offered shops for daily needs with additional specialist shops and several supermarkets. (Stec groep, 2018; Galema & van Hoogstraten, 2005)

Although the mall has been enlarged a few times in its history, it has remained consistent with its city mall identity and the functions that accompany it.

There are many shopping facilities of different sizes in the vicinity of the mall, so there is a lot of competition for consumers.

Figure 14: Application of the step-by-step plan on the functional CREM-Perspective
(own illustration, 2023)

functional CREM Perspective
- subject of the analysis: function and users -

step 1 - assessing the original mall	**step 2** - exploring changing demands of the original mall	**step 3** - assessing the current mall

Funktion

1.Shopping (Galema & van Hoogstraten, 2005)
2.Social catalysts:
Community activities in the mall, such as „[...] gastronomic facilities, water features, artworks, plantings and recreational facilities such as a playground, a swimming pool, an ice rink or a cinema [...]"(Galema & van Hoogstraten, 2005, p.26) had the purpose of making people stay longer in the malls and thus spend more money.
3.Living:
In the Netherlands, there are many examples of pedestrian zones with shops on the ground floor and flats on the upper floors. This contributed to more liveliness, especially in the evening and in the dark. (Galema & van Hoogstraten, 2005)

Development 1, 2

80s   60s

00s   2023

Shopping and social catalysts:
The function of shopping developed into mo-nofunctions without almost any social catalysts. Those had to make space for new and more products. (Rijswijk, 2019)
In recent years, social functions have occasionally found their way back into the malls as part of revitalisation projects. Malls are currently being transformed into mixed-use developments that now include residential and office space, innovative technology, and unique experiences for visitors. (Deloitte, 2017; Oka et al., 2017)

1.Shopping (Rijswijk, 2019) ■
2.Social catalysts: ■
A Bowling alley and gastronomic facilities (national archief, 2023)
no living (national archief, 2023) Shopping

Social catalysts

Living

Vacancy

Shops

Gastronomic facilities

109 shops (41,894m²)
17x catering (1,761m²)
16x services (2,000-2,500m²)
48x vacant (17.831m²)

The vacancy rate is significantly higher than average. The number of supermarkets is below the average for comparable malls in the region and there is a lack of a discounter. The hospitality sector consists of a total of 14 shops (restaurants/cafés) and is thus below average. Apart from the provision of a gym, there are no cultural/leisure facilities. The sales offer is very monotonous, as there are many chains with the same character.
(Stec groep, 2018)

Over the years, several residential buildings have been added to the mall complex.
(national archief, 2023)

Functions

· ·

Users

Dutch families did not go shopping together in the 1950s and 1960s. So it was manly adults, but especially housewives in the shopping mall.
(Galema & van Hoogstraten, 2005)

Demographic change: The population of the Netherlands is getting older, which is why young people and families are the main purchasing power in malls (Krause, 2008; Rijswijk, 2019). A study by private investor Vastned found that 71% of young people between 14-25 years of age prefer brick-and-mortar shopping to online retail. Therefore, we see mainly many young people and young adults visiting malls. (Jongeren Tussen de 14-25 Jaar Winkelen Het Liefst in Fysieke Winkels, 2017)

The shopping mall In de Boogard was a city shopping mall and accordingly offered shops for daily needs with additional specialist shops and several supermarkets. Unfortunately, there is no information about the type and age of the visitors. However, if we assume that the visitors corresponded to the typology of Dutch shopping malls, we can suppose that there were few families in de Bogaard and mainly older people/housewives. (Galema & van Hoogstraten, 2005)

73% of daily spending is generated by people from Rijswijk. 18% of the daily spending comes from The Hague. (Stec groep, 2018)

The shopping mall In De Bogaard has a good regional network: only 40% of the non-daily expenditure comes from the municipality of Rijswijk, which means that the inhabitants of Rijswijk prefer other malls (The Hague, Wateringen, Delft) for their non-daily shopping. For the inhabitants of The Hague, the shopping mall In de Bogaard is the most important place to go other then The Hague. (Stec groep, 2018)

Visitor travel: 35% by bicycle; 32% walk; 29% by car; 4% by public transport (Stec groep, 2018)

The percentage of visitors over 55 years old has increased from 2011 to 2015 and the number of visitors per week has decreased by 38% within the same period.
(Stec groep, 2018)

Figure 15: Application of the step-by-step plan on the functional CREM-Perspective
(own illustration, 2023)

11.3. Application of the step-by-step plan within the physical CREM-Perspective on the national level of the typology of dutch malls and on the individual project level of the shopping mall *In de Bogaard*
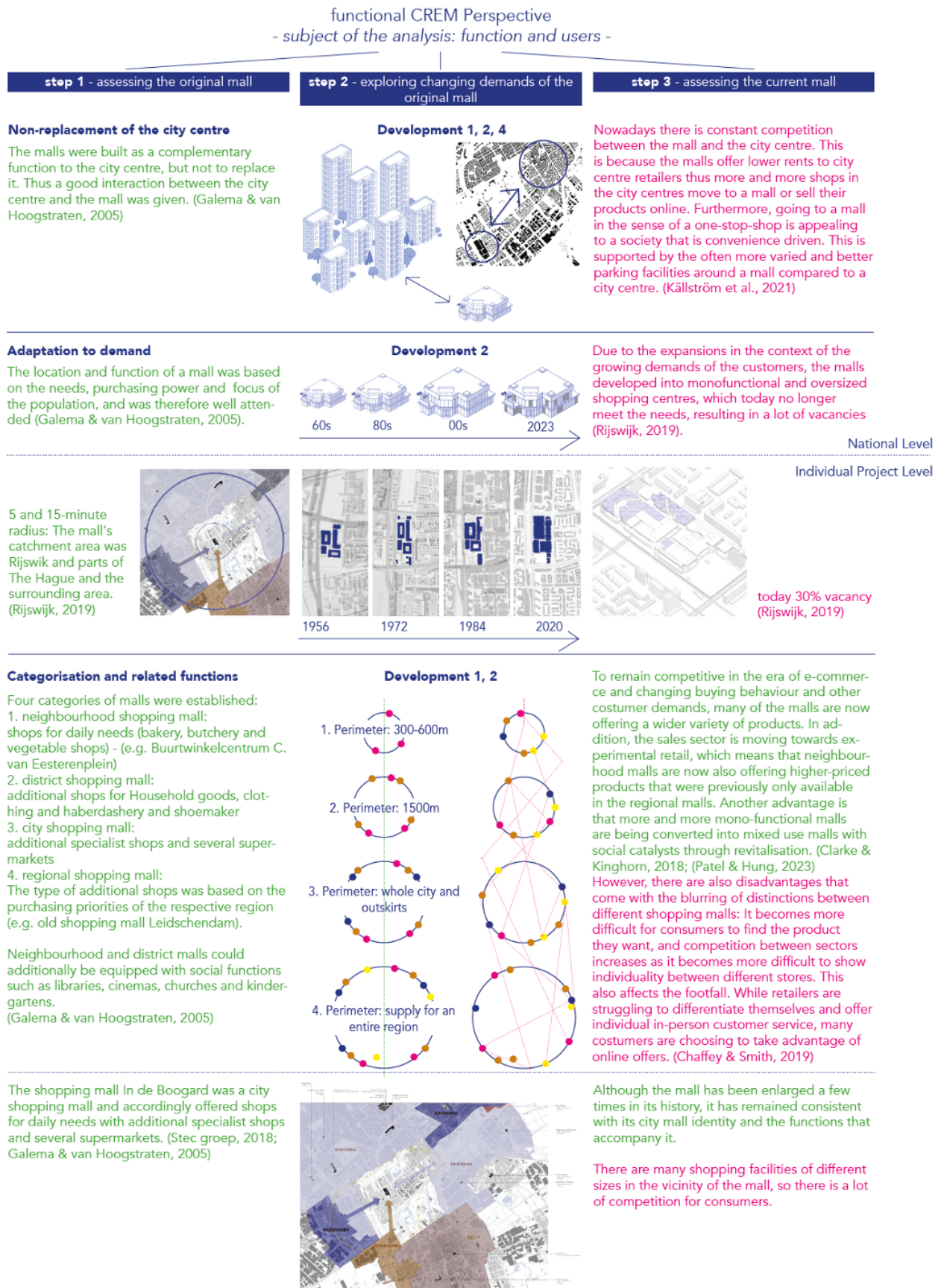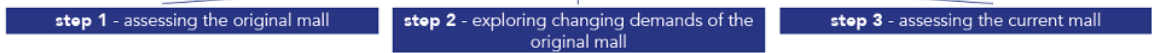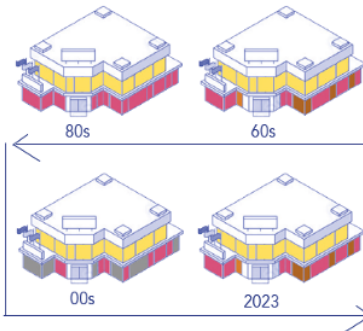

URBAN QUALITY ORIGINAL

Quality	Low ←	Explanation	→ High
Size I Dev. 2	🔴 (Low) 🟡 (Low)	The size of newly built shopping centres was often determined on the basis of experience. As a result, the shopping centres were often planned too small. (Galema & van Hoogstraten, 2005, p. 37)	
Connection to the urban surrounding I Dev. 1+2	🟡 (Low)	closed facades (negative) or open shop windows (positiv) influenced/ influene the attraction of people. (Galema & van Hoogstraten, 2005)	🔴 (High)
Urban Visibility I Dev. 2		Landmarks such as towers and domes refer to public buildings, thus highlighting their social significance and radiating dignity. (Galema & van Hoogstraten, 2005, p. 12)	🔴 🟡 (High)
Accessibility by car I Dev. 1		The car became more and more popular and therefore the good access (roads) and the possibility of loading the car was very important. Good mall accessibility was/is important for high footfall. Parking spaces arranged at an angle facilitated the flow of traffic. Furthermore, it was found that roads running tangentially towards the mall produced the least amount of congestion. (Galema & van Hoogstraten, 2005, p.39; Rijswijk, 2019)	🔴 🟡 (High)
Pedestrian Zone and delivery I Dev. 1+2		By setting up pedestrian zones, visitors do not have to watch out for traffic and thus have more time to devote to the products. Deliveries were also clearly separated from shoppers so as not to impede the flow of pedestrians. (Galema & van Hoogstraten, 2005, p. 41)	🔴 🟡 (High)
Accessibility by foot I Dev. 1+2	🟡 (Low)	A good entrance, through large shop windows, appealing architecture and advertising attracts people to enter. (Galema & van Hoogstraten, 2005, p. 12)	🔴 (High)
Structure of the Mall I Dev. 1+2		Grouping and concentrating but also the functional separation of shops, flats and traffic flows, were a successful concept. (Galema & van Hoogstraten, 2005, p. 24+47)	🔴 🟡 (High)
Parking Space I Dev. 1		Existing parking spaces lead to higher footfall and can now be used as space for revitalization. (Galema & van Hoogstraten, 2005; Rijswijk, 2019)	🔴 🟡 (High)
Typology I Dev. 2	🟡 (Low)	A clear typology prevented/prevents a restless cityscape and thus looked/looks more attractive. (Galema & van Hoogstraten, 2005)	🔴 (High)
Squares I Dev. 2	🟡 (Low)	„Large empty squares should be avoided, perhaps kiosks on a square could provide variety. Small squares were generally appreciated by the public" (Galema & van Hoogstraten, 2005, p. 41).	🔴 (High)
Quality of recreation areas I Dev. 2	🟡 (Low)	Among plants, seating, toilets and the right lighting and advertising, large and small squares became/become popular places to stay.(Galema & van Hoogstraten, 2005, p.44)	🔴 (High)
Walking route I Dev. 2	🟡 (Low)	The walking routes were to be kept as concise and short as possible, so that a common movement but also slightly more private areas could be created. It was beneficial if the mall was based on a floor plan with a „[...] line centre, [...] L-centre, [...] T-centre, [...] U-centre or [...] square centre". In addition, large chains of shops at the ends of the shopping mall should promote circulation. (Galema & van Hoogstraten, 2005, p. 42).	🔴 (High)

URBAN QUALITY NOW

Quality	Low ←	Explanation	→ High
Condition of the urban environment		If the mall is located in an environment that is growing in population, the chance of success is higher. (Rijswijk, 2019)	🟡 (High)
Revitalization projects in the area		If there are already ongoing projects, this means that the social compositions in the surrounding area will improve and the surrounding area will become more future proof (Rijswijk, 2019)	🟡 (High)
Possibility of adding and removing buildings		„Empty building plots can be of great importance regarding financial feasibility of plans" (Moons, 2020,p. 37) and for revitalization plans.	🟡 (High)
Accessibility with public transportation		„Accessibility with OV increases the chance of succes when adaptively reusing" (Moons, 2020, p. 37)	🟡 (High)

In de Bogaard
🔴 original Mall   🟡 current Mall

Figure 16: Application of the step-by-step plan on the physical CREM-Perspective
(own illustration, 2023)

Quality	Low ←	Explanation	→ High
Adaptation to demand | Dev. 2	🟡 (yellow)	The size of the mall was determined based on the surrounding population to achieve a better footfall (Galema & van Hoogstraten, 2005, p. 30)	🔴 (red)
Composition | Dev. 2	🔴 🟡 (red, yellow)	Ground floor: articles with highest frequency. Upper floors: bulky items, such as furniture and carpets. Top floor: restaurants and cafes. (Galema & van Hoogstraten, 2005)	
Flexibility | Dev. 2		Supply and demand were/are in constant change, so the space needs to be as flexible as possible. The construction through a load-bearing skeleton or outer wall and the use of uniform spacing in the subdivision of the shops and interior spaces contributed/contribute to the flexibility. In addition, load-bearing walls, staircases or downpipes were/are prohibited in the sales areas and it had/has to be possible to combine the sales areas and install technical equipment without any problems. (Galema & van Hoogstraten, 2005)	🔴 🟡 (red, yellow)
Ceiling Structure | Dev. 2		Ceiling system allows cables, pipes and lighting fixtures to be accessible without structural changes (Rotterdam ceiling) (Galema & van Hoogstraten, 2005, p. 15)	🔴 🟡 (red, yellow)
Intention | Dev. 1+2	🟡 (yellow)	The exterior of a mall aims to attract as many customers as possible (see facade design). The interior of a mall aims to keep people in the mall as long as possible (see lighting). (Galema & van Hoogstraten, 2005, p. 12)	🔴 (red)
Accessibility of the stores | Dev. 1+2		The disappearance of the threshold at the entrance of a shop led to visitors entering the shop more often (Galema & van Hoogstraten, 2005, p. 42).	🔴 🟡 (red, yellow)
Hight | Dev. 2		Height differences between shops and in the pedestrian zone are not beneficial (Galema & van Hoogstraten, 2005, p. 41)	🔴 🟡 (red, yellow)
Facade Design | Dev. 1+2		Design must not distract too much from the goods. Horizontal design/structuring, reflecting the dynamics of traffic and the modern principles of the post-war period. (Galema & van Hoogstraten, 2005, p. 13+15) To enliven the shops, showcases should be placed at the circulation areas. The same purpose was achieved by open shop windows facing the car parks.	🔴 🟡 (red, yellow)
Unity | Dev. 2	🟡 (yellow)	The store windows and the stores should have been/ be continuous and as uniform as possible to avoid a disorganized appearance. It was/is not to be interrupted by vents or walls. (Galema & van Hoogstraten, 2005, p.44)	🔴 (red)
Sun and wind protection | Dev. 2	🟡 (yellow)	Was/Is of great importance for air conditioning and weather protection. (Galema & van Hoogstraten, 2005, p. 44)	🔴 (red)
Materia | Dev. 2	🟡 (yellow)	Coordinated materials, colors, shapes, paving and measure units attracted/attract more people. (Galema & van Hoogstraten, 2005, p.44) Assessment of the condition: [Change in building material properties after completion of building material production.] (Kolbmüller, 2004, p. 1)	🔴 (red)
Character | Dev. 1+2	🟡 (yellow)	„Aspects such as cosiness, seclusion, intimacy and a good atmosphere were mentioned by shopkeepers and economists as well as urban planners and architects as important characteristics of a successful shopping mall. (Galema & van Hoogstraten, 2005, p. 44).	🔴 (red)
Connection building ground		[Facilities connected to or resting on the building ground, made of construction elements and suitable connecting means.] (Kolbmüller, 2004, p. 2)	🟡 (yellow)
Building condition		[Evaluation of the condition of the entirety of a building or a structural facility including all individual parts with the help of damage grades.] (Kolbmüller, 2004, p. 2)	
Physical wear and tear		Process or condition of material wear and tear or damage to buildings or structural facilities or their parts as a result of its use and/or environmental influences. (Kolbmüller, 2004, p. 4)	🟡 (yellow)

BUILDING QUALITY ORIGINAL (Adaptation to demand through Character)

BUILDING QUALITY NOW (Connection building ground through Physical wear and tear)

In de Bogaard
🔴 original Mall   🟡 current Mall

Figure 17: Application of the step-by-step plan on the physical CREM-Perspective
(own illustration, 2023)